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EXAMINER

NATNAEL, P

ART UNIT

PAPER NUMBER

2614

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02/09/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/599,552**

Applicant(s)  
**Ryota Tsukidate et al.**

Examiner  
**Paulos Natnael**

Group Art Unit  
**2614**



☒ Responsive to communication(s) filed on Sep 21, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1 and 3-8 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1 and 3-8 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☒ received in Application No. (Series Code/Serial Number) 08/956,585.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1(as twice amended), 3, 4(as twice amended)5, 6, 7 and 8(as amended)** are rejected under 35 U.S.C. 103(a) as being unpatentable over Arsenault et al., U.S. Pat. No. 5,886,995.

Considering claim **1**, Arsenault et al discloses the following claimed subject matter, note;

a) the claimed “**means for storing**, for each of programs of each of said channels available to said users, a program information record comprising PSI (program specific information)” is met by item 30 (fig. 2), which identifies the broadcast resource which is to be utilized at a given item for transmission of a particular input data stream, comprises addressable memory ; (see col. 11, lines 7-10);

b) the claimed “**means for permitting the broadcaster** to include, in said PSI, channel mapping information, whose mapping destination is a program to be received instead of a program for which said program information record is intended or a channel through which said program to be

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received is transmitted” is met by multiplexor 54 (fig.2), which is supplied with map information 56 from the remote map, and multiplexor 60 (fig.2). (Col. 13, lines 12-23 and 33-38).

d) the claimed “means for inserting said program information records in broadcast transport streams on schedule” is met by item 19, fig. 1; (see fig. 7; col. 11, lines 18-52)

Except for;

c) the claimed means, responsive to a determination that PSI data for said program to be received includes channel mapping information indicative of a third program or channel to be received, for changing said channel mapping information such that the mapping destination of said channel mapping information is said third program or channel;

Regarding c), Arsenault et al. discloses the map generator 19 (fig.1), which determines when changes to both the remote (transmission) and local (receiver) maps are appropriate, and generates data necessary for updating the maps. (Col. 11, lines 25-52) . Arsenault discloses dynamic mapping techniques that “generates data necessary for updating the maps” in real-time. (Col. 11, lines 25-52) Arsenault discloses that during one time slot or period of viewing up to two or three broadcast resources which would be carrying one program data, can instead be mapped to alternate Bitstreams. A viewer who wishes to watch a program scheduled to be carried by a particular network should have that program available to them when they tune to that network, even if that program is duplicative of similar programs being carried on other networks. Thus, multiple mapping is suggested in the system of Arsenault et al (See col. 16, lines 9-67) Therefore,

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it would have been obvious to the skilled in the art to readily recognize the teachings of Arsenault as a multiple channel mapping technique that introduces or provides flexibility in the channel mapping system.

Considering claim 3, Arsenault et al discloses the following claimed subject matter, note;

a)the claimed wherein said program information record further comprises channel ID of said channel selected by said user and program guide data for either the program for which said program information record is intended for or the program identified by said mapping destination of said channel mapping information of said PSI data depending on whether said PSI included said channel mapping information is met by item fig.7, which shows a method for inserting local map information into the program stream for transmission over each broadcast resource in a DBS system. (Col. 20, lines 35-67 to col. 21, lines 1-14)

b)the claimed “means for inserting said program information records in broadcast transport streams on schedule” is met by item 19, fig. 1; (see fig. 7; col. 11, lines 18-52)

Claim 4 is a method claim of claim 1. Thus, claim 4 is rejected for the same reasons discussed in claim 1.

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Considering claim 5, the claimed wherein said step of including channel mapping information comprises the step of including channel mapping information whose mapping destination is a top-rated program or a channel transmitting said top-rated program is met by multiplexor 54 (fig.2), which is supplied with map information 56 from the remote map. (Col. 13, lines 15-23).

Considering claim 6, the claimed method of “wherein said step of including channel mapping information comprises the step of including channel mapping information whose mapping destination is a program of a specific category or a channel transmitting said program of said specific category” is met by interconnection network 73, (fig. 3), which determine the allocation or mapping of the inputs to an individual transponder channel. (See col. 14, lines 15-18).

In claim 7, Arsenault et al discloses the following claimed subject matter, note;

a) the claimed “means for storing, for each of programs of each of said channels available to said users, a program information record comprising PSI (program specific information)” is met by item 30 (fig. 2), which identifies the broadcast resource which is to be utilized at a given time for transmission of a particular input data stream, comprises addressable memory ; (see col. 11, lines 7-10);

b) the claimed method of “including, in said PSI for a program said broadcaster desires to be received, channel mapping information, whose mapping destination is a program to be received instead of a program for which said program information record is intended or a channel through

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which said program to be received is transmitted” is met by items 54 and 60, fig.2; (see cols. 13-14).

c) the claimed “inserting said program information records in broadcast transport streams on schedule” is met by item 19, fig. 1; (see fig. 7; col. 11, lines 18-52)

Except for;

d) the claimed “ wherein said step of including channel mapping information comprises the step of, in the event of one of the currently broadcast programs reaches a climax including channel mapping information whose mapping destination is said one of the currently broadcast programs or a channel transmitting said one of the currently broadcast programs

Regarding d),Arsenault discloses the method of “dynamic mapping” where “certain broadcast resources during certain time slots” are freed “providing additional bandwidth which can then be used for transmission of alternate Bitstreams such as programming 71”...”The remote map 30 is modified at the beginning of TS\_sub\_1 to map an alternative Bitstream, BS\_sub\_1, onto broadcast resource BR\_sub\_2 during TS\_sub\_1.” (Col. 16, 9-36)

Therefore, it would have been obvious to the skilled in the art to provide a method such as Arsenault’s that when a program reaches a climax, the system would transmit or include a channel mapping information to change/update in real-time to the currently broadcast programs or the channel that is transmitting one of the programs.

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Considering claim 8, Arsenault et al discloses the following claimed subject matter, note;

b) the claimed method of “storing, for each of programs of each of said channels available to said users, a program information record comprising PSI (program specific information)” is met by item 30, fig. 2; (see col. 11, lines 9-10);

c) the claimed method of “Including, in each of said PSI, channel mapping information whose mapping destination is one of said physical channels (or said service programs) to be received as said channel for which said each of said PSIs is intended” is met by items 54 and 60, fig.2; (see cols. 13-14).

d) the claimed method of “inserting each of said program information records in broadcast transport streams on schedule” is met by item 19, fig. 1; (see fig. 7; col. 11, lines 18-52)

except for;

a) the claimed “step of assigning sequential channel IDs to the channels available to the users , permitting a plurality of channel IDs to be assigned to a virtual channel comprising said sequence of programs such that said virtual channel appears repeatedly in a relatively short period when said channels available to the users are swept by the users.”

Arsenault et al., doesn't specifically disclose assigning sequential channel IDs to the channels available to users. However, it is well known in the art to assign sequential channel IDs to the channels available to the users so that when swept by the users using remote controllers, or such others means, the channels would be available to users. Examiner takes Official Notice on this issue.



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***Response to Amendment***

**Applicant's Arguments**

a) Claim 2, as incorporated in the independent claims, defines a manner of processing a multiple mapping in which a destination channel, or program, to which an original channel (or program) is mapped, is further mapped to a third channel... Such multiple mapping is not disclosed in the Arsenault et al., reference applied in the parent application. To the contrary, the '995 reference does not even disclose a mapping from one existing program to another existing program (or programs) as shown by arrows in Fig. 7.

b) The '995 reference can do, through a two-stage mapping (the remote map and the local map) is to restore the original channels, such as out\_sub\_1 through out\_sub\_n shown in Fig. 4, and to create additional channels, such as out\_sub\_n+1 through out\_sub\_n+2. The reference does not support the substitution of a program, or the substitution of a channel, for a period of time, which is a significant feature of applicants' invention.

**Examiner's Response**

a) Map generator 19 determines when changes to both the remote (transmission) and local (receiver) maps are appropriate, and generates data necessary for updating the maps. (Col. 11, lines 25-52) Further, the reference of Arsenault discloses a dynamic mapping method and system that dynamically updates the contents of the map 30. Arsenault discloses that during one time slot

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or period of viewing up to two or three broadcast resources which would be carrying one program data, can instead be mapped to alternate Bitstreams. A viewer who wishes to watch a program scheduled to be carried by a particular network should have that program available to them when they tune to that network, even if that program is duplicative of similar programs being carried on other networks. Thus, multiple mapping is disclosed in the Arsenault et al (See col. 16, lines 9-67)

b) Please see part (a) above.

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Suzuki, U.S. Pat. No. 5,864,358 discloses a method for switching programs in digital broadcasting.

B) Wasilewski, U.S. Pat. No. 5,600,378 discloses a logical and composite channel mapping in an MPEG Network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Paulos Natnael** whose telephone number is (703) 305-0019. The examiner can normally be reached on **Monday through Thursday** from 7:00 a.

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m. to 4:00 p.m. (Est) The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reinhard J. Eisenzopf, can be reached at (703) 305-4711.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

***Any response to this action should be mailed to:***

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

***or faxed to:***

(703) 308-6306, (for formal communications intended for entry)

***or:***

(703) 308-6296 (for informal or draft communications, please label "PROPOSED" OR "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, V.A. Sixth Floor (Receptionist).

Paulos M. Natnael

February 6, 2001

*PMW*

*Reinhard J. Eisenzopf*  
REINHARD J. EISENZOPF  
SUPERVISORY PATENT EXAMINER  
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2-8-01